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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,319	03/10/2004	Michael Paul Edfeldt	4031.002	4266
37999	7590	03/25/2005	EXAMINER	
DEWITT ROGGIN PLLC 12 E. LAKE DRIVE ANNAPOLIS, MD 21403			SALDANO, LISA M	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/797,319

Applicant(s)

EDFELDT, MICHAEL PAUL

Examiner

Lisa M. Saldano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/6/05 &amp; 7/6/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10 and 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hulsbergen (4,648,745).

Regarding claims 1-4, 10, 12 and 14-17, Hulsbergen discloses a method and device for burying a conduit in the bottom of a waterbed. Hulsbergen discloses protruding longitudinal fins 2 that are substantially parallel to a first portion of a conduit 1. The fin is approximately over dead center along the first portion of the conduit and the protruding fin is securely connected to the conduit (see Figs.1-3). Hulsbergen further discloses second, third and fourth protruding parts or fins that are located, as broadly claimed by the applicant, approximately 10-30 degrees away from one another and a securely connected to the conduit 1 (see Fig.3).

Regarding claims 5-9, Hulsbergen discloses that the longitudinal fins (4,5,6,7) maybe open (see Fig.1 and column5, lines 30-40). Being open, these fins permit water flow through at least a portion of the fins. Hulsberger further discloses protruding parts at longitudinal positions along the conduit, adjacent to a longitudinal position of the protruding parts. Regarding the distance that the protruding parts are located relative to one another, the optimal distance can be

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determined through routine experimentation. The Hulsbergen disclosure does not preclude placement of the protruding fins approximately or at least four inches from one another.

Regarding claim 13, Hulsbergen discloses that the invention is a method and device for burying a conduit in the bottom of a waterbed. Therefore, the method comprises at least stimulating self-burial of conduits.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hulsbergen as applied to claim 1 above and further in view of Goepfert et al (3,454,051).

Hulsbergen discloses the inventions as described above. Hulsbergen discloses various protruding parts or fins 2,4,5,6,7.

However, Hulsbergen fails to explicitly disclose that the invention may have protruding parts that comprise a seat and fin.

Goepfert et al disclose an underwater pipeline 16 with protruding helical ridges or spoilers 19 that function as fins formed from a coating material (see column 2, lines 56-60). Goepfert et al disclose that the pipeline may be coated at spaced intervals or continuously along a section (see Figs.2&4). The helical formation of the spoiler 19 forms a first protruding part of coating material approximately over dead center along a first portion of the pipeline or conduit

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16 (as broadly claimed by the applicant of the present invention). The spoiler 19 is securely connected to the pipeline as shown in Fig.3. The helical formation of the spoiler 19 further provides a second protruding part approximately 10 to 30 degrees from dead center of the pipeline on a second portion of the pipeline that is different from the first portion. Actually, the helical formation of the spoiler 19 provides protruding parts at first through infinite portions of the conduits at various angles from a location selected as dead center of the pipeline 16; each portion being a different portion of the pipeline located at various distances from one another, including four inch or greater distances depending on where you measure one part of the helical spoiler from another part of the helical spoiler. Goepfert et al disclose that the spoilers reduce the lift coefficient of the pipeline as well provide an increased frictional placement of the pipeline along the ocean floor such that if the pipeline becomes partially or even fully buried due to soft bottom conditions, the spoilers' 19 interaction with the soft ocean bottom tends to hold the pipeline in place (see column 3, lines 18-25).

Regarding claim 11, the weight coating 7 provides a seat and the spoiler 19 provides a fin for the protruding parts of the invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Hulsbergen to comprise a seat and a fin located in the fin to secure the fin to a conduit, as taught by Goepfert, because both inventions comprise structure that Hulsbergen teaches inherently promotes burying of a conduit in the bottom of a waterbed. Goepfert merely bolsters the invention by teaching the use of an intermediate seat used to connect the protruding fins to a conduit.

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Furtherore, Although Goepfert et al fail to explicitly disclose that the invention comprises a method for promoting self-burial of a conduit in the bottom of a water bed or a method for providing stability for a conduit in the bottom of a water bed, the disclosure provided by Goepfert et al clearly discloses that the basic steps and the motivation required to develop a method such as the method claimed by the applicant in the application for the present invention. To reemphasize, as stated above, Goepfert et al disclose that the spoilers provide an increased frictional placement of the pipeline along the ocean floor such that if the pipeline becomes partially or even fully buried due to soft bottom conditions, *the spoilers' 19 interaction with the soft ocean bottom tends to hold the pipeline in place.*

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hulsbergen as applied to claim 14 above.

Hulsbergen discloses the features as described above.

Although Hulsbergen fails to explicitly disclose that the length of pipe comprises a plurality of adjoined sections of pipe, it would be obvious to one of ordinary skill in the art at the time of the invention to use the invention of pipeline constructed in any commonly known method, including methods whereby a plurality of sections of pipe are adjoined to one another.

6. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulsbergen (4,648,745) in view of Sanden Corp (JP-07318275-A) OR DeVries (EP-0466219A1).

Hulsbergen discloses a method and device for burying a conduit in the bottom of a waterbed. Hulsbergen discloses protruding longitudinal fins 2 that are substantially parallel to a

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first portion of a conduit 1. The fin is approximately over dead center along the first portion of the conduit and the protruding fin is securely connected to the conduit (see Figs.1-3).

Regarding claims 20-22, Hulsbergen further discloses second, third and fourth protruding parts or fins that are located, as broadly claimed by the applicant, approximately 10-30 degrees away from one another and a securely connected to the conduit 1 (see Fig.3). Hulsbergen discloses that the longitudinal fins (4,5,6,7) maybe open (see Fig.1 and column5, lines 30-40). Being open, these fins permit water flow through at least a portion of the fins. Hulsberger further discloses protruding parts at longitudinal positions along the conduit, adjacent to a longitudinal position of the protruding parts. Regarding the distance that the protruding parts are located relative to one another, the optimal distance can be determined through routine experimentation. The Hulsbergen disclosure does not preclude placement of the protruding fins approximately or at least four inches from one another.

However, Hulsbergen fails to disclose that the protruding fin comprises a groove for receiving the fin.

Sanden Corp. discloses a pipe and fin engagement configuration wherein a number or seats 5a that may house a pipe or function as a pipe itself comprises a concave portion for receiving a piggy-back pipe. The seat 5a has a plurality of grooves 5a1 that receive fins 5b (see Figs. 2b,3b).

DeVries discloses a pipeline with ground anchors comprising a pipe 1, seats 4, and spoilers 3, which function as protruding parts or fins.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify protruding fins of Hulsbergen to comprise the method of connected a fin to a conduit

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comprising a seat and fins, as taught by the Sanden Corporation and DeVries. The structure of the Sanden Corp's pipe with fins is essentially the same as the structure of the Hulsbergen pipe with fin, though the applications for the two structures are different. Since the structure is the same, the Sanden Corp. reference is used merely as a teaching of securing a protruding fin to a conduit by way of a seat. DeVries clearly teaches that the protrusions work as ground anchors to anchor a pipe into the seabed.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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